

Observations of Comet Barnard (1888, September 2) with the Transit-circle.

G.M.T. of Transit.	Observer.	Apparent R.A. of Comet.		Apparent N.P.D. of Comet.	Parallax N.P.D. q		Log (q x Δ).	Observer's Remarks.
		h	m s	° ' "	h	m s		
1888. Nov. 16	F. B.	12	16 39	3 57	34.18	° 9 20.8	0.8515	Faint; difficult observation.
20	F. B.	11	33 35	3 30	9.59	93 28 39.1	0.8587	Nucleus 10-11. Difficult but satisfactory observation.
22	F. B.	11	11 51	3 16	15.32	94 5 39.8	0.8620	Thin clouds passing. Difficult.
27	F. B.	10	18 8	2 42	5.62	95 27 8.2	0.8688	Not a satisfactory observation; comet very faint.

In the computation of the parallax the adopted value of the Sun's mean horizontal parallax is 8".85, and the geocentric distances, Δ, have been taken from the *Astronomische Nachrichten*, Nos. 2861 and 2867.

Comet Barnard (1888, October 30).

The following observations were made with the Barclay equatorial, using the ring-micrometer, with power 100.

Date.	G.M.T.		Local Sidereal Time.		Observer.	* — — (Corrected for Refrac- tion only.)		No. of Com- pari- sons.	Apparent R.A. of Comet.		Parallax in R.A. $\frac{p}{s}$	Log ($p \times \Delta$).	Apparent N.P.D. of Comet.		Parallax in N.P.D. $\frac{q}{g}$	Log ($q \times \Delta$).	Refer- ence to Compa- rison Star.	
	h	m	s	h		m	s		'	"			h	m				s
1888. Nov. 27	15	11	14	7	36	0	F. B.	-1 11.76	...	8	10 16 58.38	-0.15	9.3792	99 51	"	-4.70	0.8761	(a)
27	15	11	14	7	36	0	F. B.	-1 43.92	+1 0.7	8	10 16 57.42	-0.15	9.3792	99 51	"	-4.70	0.8761	(b)
1889. Jan. 29	11	28	6	8	0	39	F. B.	+1 46.08	+7 3.7	9	10 5 49.91	-0.14	9.3013	71 22 38.2	"	-3.52	0.7029	(c)
29	12	10	52	8	43	32	F. B.	-1 17.69	+4 55.6	9	10 5 47.79	-0.09	9.1312	71 21 44.9	"	-3.42	0.6905	(d)
Feb. 1	12	39	23	9	23	57	W.	+0 53.49	+4 39.1	9	10 2 27.93	-0.05	8.8127	69 44 3.6	"	-3.17	0.6634	(e)

Assumed Places of Comparison Stars.

Comp. Star.	Mean R.A. 1888°.		Reduction to Apparent R.A.	Mean N.P.D. 1888°.	Reduction to Apparent N.P.D.	Authority.
	^h ^m ^s		^s	[°] [']	["]	
(a)	10 18 8.31		+1.83	99 52	+5.4	Schön. Z. -9°, No. 3059.
(b)	10 18 39.51		+1.83	99 49	+5.4	Schön. Z. -9°, No. 3063.
	Mean R.A. 1889°.			Mean N.P.D. 1889°.		
	^h ^m ^s			[°] ['] ["]		
(c)	10 4 3.33		+0.50	71 15 29.2	+5.2	Bonn Meridian Observations, vol. vi.
(d)	10 7 4.99		+0.49	71 16 44.1	+5.2	Bonn Meridian Observations, vol. vi.
(e)	10 1 33.88		+0.56	69 39 19.2	+5.4	Radcliffe Transit-circle Observation, 1889, Feb. 4.

Observers' Remarks.

1888, Nov. 27.—A faint nebulous, almost circular, patch, about 1¼' in diameter. Nucleus only seen at times, and is of the 11½ mag. Observations difficult; moonlight and haze.

1889, Jan. 29.—Nucleus stellar but slightly elongated, mag. 11½ or 12. Surrounded by a moderately bright nebulosity about 4' in diameter. No tail.

Feb. 1.—The comet is a hazy patch of about 1' diameter with a stellar nucleus, mag. 13.

In the computations of the parallax the adopted value of the Sun's mean horizontal parallax is 8".85, and the geocentric distances, Δ, have been taken from the *Astronomische Nachrichten*, Nos. 2867 and 2871.

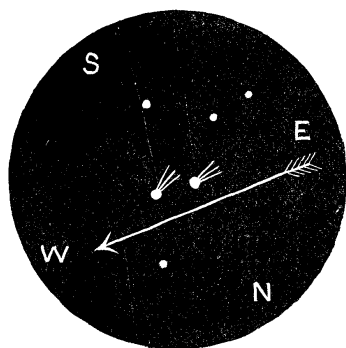
Observers: W.—Mr. W. Wickham; R.—Mr. H. Robinson; F. B.—Mr. F. A. Bellamy.

N.B.—The N.P.D. of the Comparison Star (a), *Monthly Notices*, vol. xlix, No. 2, page 84, is 7".5 too small, and the N.P.D. of Comet Barnard (1888, Sept. 2) observed on Oct. 5 requires, therefore, to be increased by 7".5.

Radcliffe Observatory, Oxford:
1889, March 7.

Discovery of Comet Brooks, a 1889. By William R. Brooks.

While sweeping the eastern heavens in the neighbourhood of the Sun, on the morning of January 15, 1889, at 6^h 5^m L.M.T., I discovered a new comet in approximately R.A. 18^h 04^m; declination south 21° 20'. I had only time to take the circle readings for position—the instrument used being the new 10½ inch equatorial of this observatory, with a large achromatic positive eyepiece giving a power of 40 diameters, and a field of 1° 20'. The nearly full Moon was just setting, and the dawn approaching, so I had but a short time in which to do my work; but fortunately the comet was in a well-marked field of telescopic stars, and so I was enabled to detect motion in a few minutes, which was rapid in a westerly course.



In the annexed diagram I show the stars used to detect motion, by alinement, my usual custom. The comet was nearly round, with slight central condensation. It was "faintish," yet brighter than well-known nebulae in that region which were not seen. I was *sure* of its cometary nature, as I am now, and also of *motion*, which was unmistakable. Immediate telegraphic announcement was made of the discovery.

Clouds prevented another observation of the comet until the morning of the 20th, when careful sweeps were made in the direction of motion from the place of discovery, but the search was unsuccessful, owing to the bright moonlight—the Moon being only three days past the full. No other opportunity has since offered at this observatory to re-observe the comet. It must now be a long distance west of its position at the time of discovery and probably fainter, for I must have caught the object just as it was sweeping upwards from the Sun. Yet it is hoped that the comet may not be beyond telescopic reach when the present Moon is out of the way.

Smith Observatory, Geneva, N.Y., U.S.A. :
1889, January 25.